

In re Appln of NESPER et al
Appln. No. 10/544,211
Reply dated January 7, 2010
Reply to Office Action of July 8, 2009

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. **(Original)** A process for producing a B/N/C/Si ceramic from a borazine precursor, characterized in that the borazine precursor is B-tris(hydrosilylvinyl)borazine and this is converted into ceramic by pyrolysis.

2. **(Original)** The process as claimed in claim 1, characterized in that the B-tris(hydrosilylvinyl)borazine is prepared by hydrogenation of B-tris(trichlorosilylvinyl)borazine.

3. **(Original)** The process as claimed in claim 2, characterized in that the B-tris(trichlorosilylvinyl)borazine is prepared from B-triethynylborazine by hydrosilylation.

Claim 4 **(Cancelled)**.

5. **(Previously Presented)** The process as claimed in claim 1, characterized in that the B-tris(hydrosilylvinyl)-borazine is applied to a substrate in liquid form and is subsequently pyrolyzed.

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6. **(Original)** The process as claimed in claim 5, characterized in that B-tris(hydrosilylvinyl)borazine is dissolved in a solvent and is made thixotropic.

7. **(Previously Presented)** The process as claimed in claim 5, characterized in that B-tris (hydrosilylvinyl) borazine or a solution thereof is applied to said substrate by painting or spraying and is subsequently pyrolyzed.

8. **(Previously Presented)** The process as claimed in claim 1, characterized in that the B-tris(hydrosilylvinyl)-borazine is, after a prepyrolysis, converted into a high-temperature ceramic at a higher temperature in the range from 1000°C to 2000°C, optionally 1100-1300°C.

9. **(Previously Presented)** The process as claimed in claim 1, characterized in that the precursor is doped with a metal or a metal compound to produce a doped ceramic.

10. **(Previously Presented)** The process as claimed in claim 1, characterized in that the molecules of the borazine precursor are one-dimensionally or two-dimensionally crosslinked prior to the pyrolysis.

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11. **(Withdrawn-Currently Amended)** The process as claimed in claim 1, characterized in that the precursor is B-tris((phenyldihydrosilyl)vinyl)borazine, B-tris((methyldihydrosilyl)vinyl)borazine or an amine thereof.

12. **(Withdrawn)** A ceramic produced as claimed in claim 1, characterized in that it is substantially pore-free.

13. **(Withdrawn)** The ceramic as claimed in claim 12, characterized in that it is a substantially oxygen-free high-temperature ceramic.

14. **(Withdrawn)** The ceramic as claimed in claim 12, characterized in that it is a semiconductor.

15. **(Withdrawn)** The ceramic as claimed in claim 12, characterized in that it has been doped with metal.

16. **(Withdrawn)** In a method of producing a heating element, comprising forming at least a part of said heating element of ceramic, the improvement wherein said ceramic comprises the ceramic produced according to claim 1.

17. **(Previously Presented)** The process of claim 1 wherein said ceramic is formed as a coating.

18. **(Previously Presented)** The process as claimed in claim 17, characterized in that the coating is antistatic.

19. **(Previously Presented)** The process as claimed in claim 17, characterized in that the coating is an interior coating, optionally of a pipe.

20. **(Withdrawn)** In a method of producing a semiconductor, comprising forming at least a part of said semiconductor of a ceramic, the improvement wherein said ceramic comprises the ceramic produced according to claim 1.

21. **(Withdrawn)** In a method of a medical implant, comprising forming at least a part of said medical implant of a ceramic, the improvement wherein said ceramic comprises the ceramic produced according to claim 1.

22. **(Withdrawn)** The method as claimed in claim 21, characterized in that the ceramic has been doped with metal.